## Some Wart Removers are Flammable

ome cryogenic wart removers—which remove warts from the skin by freezing them off—have caught fire during use at home, harming consumers or setting fire to items around the house.

Since 2009, the Food and Drug Administration (FDA)—which regulates wart removers as medical devices—has received 14 such reports about over-the-counter (OTC) wart remover products, which are a mixture of liquid dimethyl ether and propane.

Ten patients have described singed hair, blisters, burns or skin redness, according to FDA nurse consultant Karen Nast, RN. Nearby items have also caught fire.

"The labeling for these products clearly states that they are flammable and should be kept away from fire, flame, heat sources, and cigarettes," Nast notes. In three of the reports, there was a candle nearby, but in the other 11 reports no ignition source was identified. "This is extremely concerning, especially because people may not be aware that everyday household items like curling irons and straight irons can be hot enough to be an ignition source for these products," Nast says.



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after use or when the dispenser is empty. This may cause
dispenser to explode, causing serious injury."

## **How to Use These Products**

Warts are growths caused by human papillomavirus (HPV) infection. Most treatments using a mixture of liquid dimethyl ether and propane instruct users to follow certain steps.

First, the user presses on the nozzle of a small, pressurized canister (dispenser) containing the mixture. The dispenser releases the mixture, cooled to approximately -40 degrees Celsius, onto an applicator, saturating it. (In some products, the applicator is attached to the cap.) The user presses the applicator on the wart for the amount of time specified in the product directions. An average of three to four treatments is required for warts on thin skin. Warts on calloused skin, such as plantar warts on the soles of the feet, might take more treatments.

In the reports FDA has received, the dispenser generally caught fire when it was releasing the mixture.

## **Alternative Treatments**

Warts can often disappear on their own without treatment in most people, says FDA dermatologist Markham Luke, MD. However, if you are not sure if your warts are cause for concern or if you have questions about using cryogenic products at home, it's best to be on the safe side and talk with your health care professional before taking action, Luke says.

Your health care professional may prefer to remove the warts in the medical office, using treatments such as surgical paring, laser, or liquid nitrogen cryosurgical treatments. "The advantage is that the health care professional has been trained in providing the treatment safely and under controlled conditions," he adds.

Alternatively, there are other types of OTC treatments available for use at home, such as topical applications of salicylic acid, which soften or loosen warts so they fall off or can be easily removed.

If you are going to use a cryogenic product at home, Luke recommends that you use it only as directed on the labeling, and that you heed warnings such as this one from a currently marketed product: "Extremely flammable. Do not pierce, burn or expose aerosol spray dispenser to excessive heat, even after use or when the dispenser is empty. This may cause dispenser to explode, causing serious injury." Also be sure to use the product in a well-ventilated area, Luke says.

Nast says that while the FDA has

received only 14 reports of fires related to cryogenic treatments to date, such occurrences are often under-reported. She encourages consumers to inform the FDA about similar experiences. "It's important for us to know when and how problems like this happen," she says.

You can report device-related problems through FDA's MedWatch alert system. ♠

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